

AAAS misses opportunity to advance open access

Erin McKiernan¹ and Jonathan Tennant¹

¹Affiliation not available

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ERIN MCKIERNAN , JONATHAN TENNANT

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Access to research is limited worldwide by the high cost of subscription journals that require readers to pay to view content. The reuse of scientific research in educational materials, new studies, news outlets, and by small-medium enterprises is often restricted by publishers who require authors to sign over their rights and then control what is done with the published work. In response, a movement that would allow free access to this information and no restrictions on reuse -- termed open access -- is growing.

Some universities and scientific funding organisations, including those administered by governments, now mandate open access, recognising its potential to increase the impact of research paid for by public money. The United Nations is considering the importance of open access to ensure the "right to enjoy the benefits of scientific progress and its applications".

Scholarly societies, including the [American Association for the Advancement of Science \(AAAS\)](#), have recently launched new open-access journals. This is a welcome development, but the approach of some societies is at odds with that of other [major open-access publishers](#) and could impair the goals of open access.

Recently, over 100 scientists signed an [open letter](#) to the American Association for the Advancement of Science (AAAS), expressing concerns about their new journal, *Science Advances*.

AAAS plans to publish articles by default under a [Creative Commons Attribution-NonCommercial license](#) (CC BY-NC), restricting reuse. The article processing charge will be \$3000, with a \$1000 surcharge for the open [CC BY](#) license and \$1,500 for articles over 10 pages - up to \$5,500 in total. We raised issue with the licensing, outlining the [benefits of CC BY](#) over CC BY-NC to authors and the public. We also questioned the surcharges, requesting AAAS provide a transparent calculation of publishing costs. The letter was delivered to AAAS on August 15 and [published in The Winnower](#). To date, AAAS has not publicly acknowledged reception of the letter or formally responded.

On August 28, *Times Higher Education (THE)* [published an article](#) citing our letter. AAAS [published a response](#) to *THE* journalist, Paul Jump, discussing licensing and fees. We contacted AAAS the same day to ask if a formal response to signatories was forthcoming. On August 29, Editor-in-Chief Marcia McNutt informed us privately that a response would be issued as a [FAQ](#), which was published around 6 p.m. EDT that day.

Neither AAAS' response to Mr. Jump or their FAQ acknowledged the open letter and its signatories or addressed our concerns and recommendations. However, we offer our counter-response to the information AAAS has made publicly available:

"[AAAS'] DECISION TO SELECT THE CC-BY-NC LICENSE AS THE DEFAULT OPTION...WAS BASED ON

AUTHOR FEEDBACK." [1]

Was a formal survey conducted? Which authors were asked and how many responded? Were authors informed about each license; for example, were authors told CC BY-NC limits reuse of their work in educational materials? Were authors told CC BY-NC is incompatible with some funder mandates? AAAS' survey methodology should be transparent if results are used to explain licensing decisions.

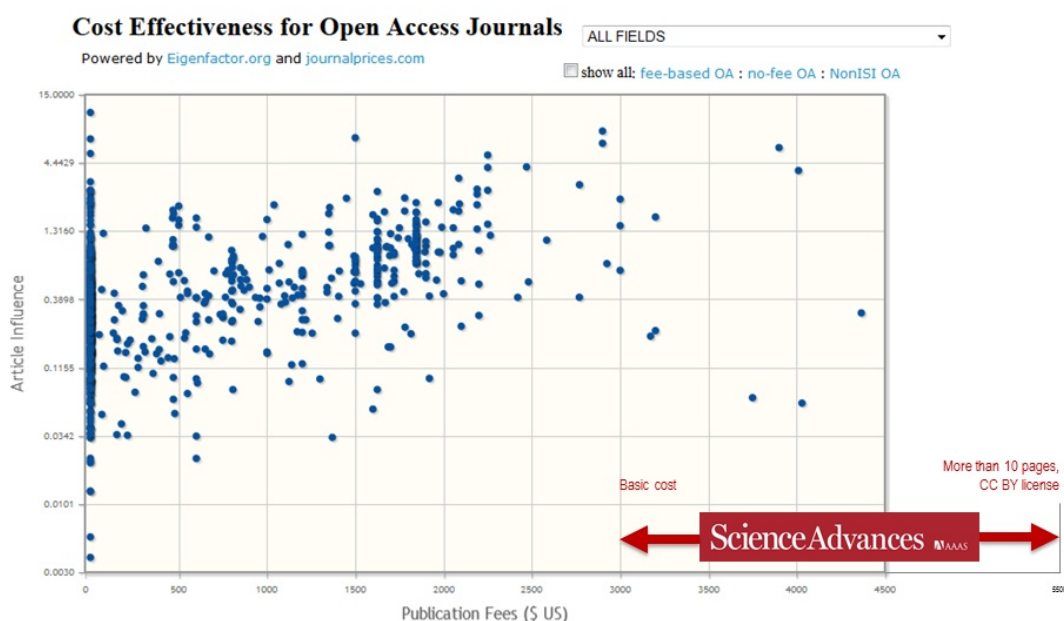
AAAS can give authors a choice of licensing options without penalizing those who want, or are required by funder mandates, to choose CC BY. AAAS has not demonstrated how a CC BY surcharge is justified.

"ARTICLES PUBLISHED IN SCIENCE ADVANCES WILL COMPLY WITH INSTITUTIONAL AND FUNDER MANDATES." [2]

Articles published under CC BY-NC will not comply with all institutional and funder mandates. The Wellcome Trust requires articles incurring publication fees be licensed CC BY, and compiled a [list of non-compliant journals](#). Research Councils UK also [requires CC BY](#). Advertising compliance as a benefit of publishing with *Science Advances* is misleading to authors.

"THE INITIAL AUTHOR FEE OF \$3000 PER ARTICLE...IS COMPETITIVE WITH COMPARABLE OPEN-ACCESS JOURNALS." [1]

Some open access journals charge a \$3000 publication fee, but the majority charge less. This price also does not include possible page and license surcharges, which can sum to \$5,500. We are aware of only two other open access journals charging similar fees: *Elsevier's Cell Reports* at \$5,000 (no surcharges for page number or CC BY) and *Nature Communications* at \$4,800-\$5,200 (maximum includes a \$400 CC BY surcharge). Thus, *Science Advances*' fees are not only not competitive, they are off the scale (Fig. 1).



<http://www.eigenfactor.org/openaccess>

Figure 1 *Science Advances*' publication fees compared to other open access journals. Credit: [Zen Faulkes](#): reproduced with permission

"THE [PAGE-LENGTH] SURCHARGE IS TO HELP COVER THE ADDED COSTS OF EDITING,

COPYEDITING, AND OTHER SERVICES. IT IS ALSO INTENDED TO PROMOTE BREVITY AND PRECISION AND DISCOURAGE POORLY-WRITTEN AND UNNECESSARILY LENGTHY ARTICLES" [2]

Ten pages is an arbitrary limit for an online journal. AAAS has not provided a transparent calculation of publication costs to justify a surcharge beyond this threshold. Concerns about brevity and writing quality can be addressed during peer review, which is done by scientists at little to no cost to the journal. Leading open access journals from PLOS, BMC, and PeerJ offer unlimited page lengths at no additional cost.

"AAAS REMAINS FULLY COMMITTED TO OPEN-ACCESS SCIENTIFIC PUBLISHING, AND WILL LOOK FORWARD TO ENGAGING FURTHER WITH READERS, AUTHORS, AND EDITORS" [1]

Several of AAAS' recent actions on open access are cause for concern:

October 4, 2013: *Science* publishes a [news piece posing as a scientific study](#), claiming systemic problems with peer review at open access journals. This 'study' was widely criticized by the academic community (see posts from [Martin Eve](#), [Heather Joseph](#), [Peter Suber](#), and the [Open Access Scholarly Publishing Association](#)).

June 13, 2014: AAAS writes a [letter to Farina Shaheed](#), Special Rapporteur in the field of cultural rights at the United Nations. Shaheed is preparing a report on open access for the UN Human Rights Council. AAAS expresses reservations:

"the movement towards open access is still relatively young and, therefore, any suggested approaches to achieving that goal are essentially experimental. What appears evident is that imposing new burdens and costs on stakeholders will be difficult to avoid...The AAAS encourages a rigorous assessment of the equity issues raised by both the reader-pays and author-pays models".

August 6, 2014: AAAS announces Kent Anderson has been [appointed as Publisher](#) of the *Science* journals and will oversee the launch of *Science Advances*. The choice of Anderson - a vocal skeptic of open access publishing - was criticized by academics (see posts from [John Dupuis](#), [Michael Eisen](#), and [Zen Faulkes](#)).

"WE WILL RE-EVALUATE OUR POLICIES FOLLOWING THE LAUNCH OF SCIENCE ADVANCES." [1]

"WE WILL REASSESS THE COST STRUCTURE FOR THESE LICENSES AFTER ONE YEAR." [2]

Science Advances will launch in February 2015. AAAS will proceed without making any of the changes recommended by over 100 scientists. It is unfortunate that AAAS has chosen not to fully embrace open access and maximise the impact of publicly funded research. This was a missed opportunity for the world's largest general scientific society to lead the way in increasing worldwide access to information.

REFERENCES:

[1] [AAAS' response to Paul Jump](#)

[2] [Science Advances FAQ](#)